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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/720,216	11/25/2003	Toshiya Yuasa	03560.003402	4985

5514 7590 01/24/2006

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NEW YORK, NY 10112

EXAMINER

CORDRAY, DENNIS R

ART UNIT	PAPER NUMBER
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1731

DATE MAILED: 01/24/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/720,216

Applicant(s)

YUASA, TOSHIYA

Examiner

Dennis Cordray

Art Unit

1731

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 December 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 3 and 4 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 3 and 4 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

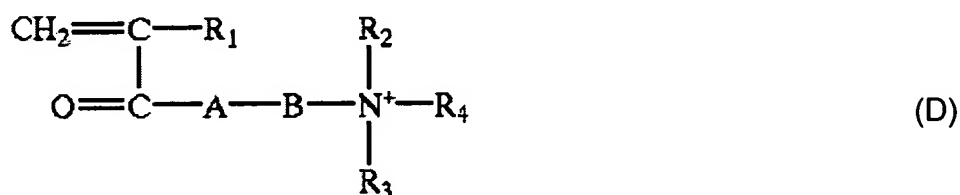
DETAILED ACTION***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

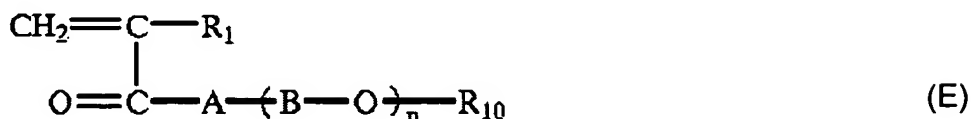
(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 3 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hallstrom et al (US 2002/0139502).

Hallstrom et al discloses a papermaking composition comprising cellulosic fibers (fibrous pulps), fillers and a copolymer (Abstract). The copolymer (Pars 7, 8, 15 and 16) comprises monomers having the structure represented by general formula (D),



wherein R_1 is H or CH_3 , R_2 and R_3 are each hydrogen or a C_1 - C_3 alkyl group, A is O or NH, B is an alkylene group of from 2 to 8 carbon atoms or a hydroxy propylene group, and R_4 is a substituent containing a hydrophobic group, suitably non-aromatic hydrocarbon group containing at least 2 carbon atoms; and the structure represented by general formula (E),



wherein R_1 is H or CH_3 ; A is O or NH; B is an alkylene group of from 2 to 4 carbon atoms, n is an integer of at least 1, R_{10} is a substituent containing a hydrophobic group, suitably alkyl, having at least 2 carbon atoms.

In the above disclosed formulae (D) and (E), if R_1 is H, R_3 and R_4 is an alkyl group, $n=1-3$, A is O and B is a C_2 alkyl group, then the repeating units in a copolymer made from the formulae (D) and (E) above become the claimed repeating units (i or 1) and (ii or 2) of the instant invention.

Hallstrom et al further discloses the molar ratio of the two monomers A and B from 1:99 to 99:1 (Par 18). This compositional range encompasses the claimed range.

Hallstrom et al does not disclose a recording sheet formed using the disclosed copolymer; however, the reference discloses using the copolymers in a papermaking process. The art of Hallstrom et al and the instant invention are analogous as they pertain to making paper comprising a polymer additive. It would have been obvious at the time the invention was made to a person with ordinary skill in the art to make a paper comprising the copolymer of Hallstrom et al, fibrous pulp and fillers, since such a product is envisioned. Further, the paper so formed is capable of functioning as a "recording sheet" because, where the claimed and prior art apparatus or product are identical or substantially identical in structure or composition, a *prima facie* case of either anticipation or obviousness has been established. *In re Best*, 562 F.2d 1252,

1255, 195 USPQ 430, 433 (CCPA 1977). In other words, when the structure recited in the reference is substantially identical to that of the claims, the claimed properties or functions are presumed to be inherent.

Response to Arguments

Applicant's arguments filed 12/09/2005 have been fully considered but they are not persuasive. In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., a molecular weight of about 20,000 to 60,000) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

In response to the argument that no evidence has been presented indicating that a polymer of the weight average molecular weight of Hallstrom et al (500,000 to above 1,000,000) would be capable of acting as a sizing agent, the following references are presented. Kawano et al (5478631) discloses an ink jet recording sheet having an ink receptive layer (sizing) comprising a water soluble polymer having a molecular weight of 100,000 to 1,000,000 (col 6, lines 16-23). Kawai et al (6465078) claims a recording sheet comprising a substrate and an ink absorbing layer composed of a polymer with a molecular weight of 2,000 to 1,000,000 (Claims 1 and 8). Kawai et al (US 2002/0160162) discloses a recording sheet comprising a substrate and an ink absorbing layer composed of a polymer with a molecular weight of 2,000 to 1,000,000 (Abstract; p 4, par 49).

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dennis Cordray whose telephone number is 571-272-8244. The examiner can normally be reached on M - F, 7:30 -4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven Griffin can be reached on 571-272-1189. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

DRC
DRC

Steven P. Griffin
STEVEN P. GRIFFIN
SUPERVISORY PATENT EXAMINER
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